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**FORTE**  
LITHIUM ENERGY

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CLASSIC INNOVATION

## PREFACE

Founded in 2001, Forte company has dedicated over two decades to the R&D, production, and sales of primary lithium batteries. As one of the pioneers and leaders in China's primary lithium battery industry, we leverage our full-range product development capabilities and large-scale manufacturing advantages to deliver stable and reliable battery solutions to global customers. Through continuous innovation and an unwavering commitment to quality, we have become a trusted partner in the industry.

Recognized as a National High-Tech Enterprise, Forte company holds multiple core patents, demonstrating strong technical expertise. The company is headquartered in Wuhan China, with a 40-acre industrial park and 50,000 square meters of modern production facilities, ensuring reliable product delivery and consistent quality.

Forte company is embarking on an exciting new chapter. In 2025, the company broke ground on a new Industrial Park in Xiaogan Economic Development Zone, with a total investment of RMB 170 million. Scheduled for completion by the end of 2026, this new park will add an annual production capacity of 46 million batteries, specifically serving industrial fields such as IoT, security, and smart meters.

## COMPANY PROFILE

Forte battery company was founded in 2001. It's a national high-tech enterprise. Forte is dedicated to being a leader in the R&D, production, sales and service of Li-SOCl<sub>2</sub> Batteries, Li-MnO<sub>2</sub> Batteries, and other primary lithium batteries.



**INDEPENDENT DEVELOPMENT  
& TECHNOLOGY INNOVATION**

With over two decades of specialization in primary lithium batteries, Forte company persists in independent innovation to maintain its position at the forefront of the industry. It stands as one of the few domestic enterprises with comprehensive R&D and scalable mass-production capabilities for the entire primary battery series.



**WIDE RANGE OF  
APPLICATIONS**

Forte batteries have obtained international certifications such as UL, CE, UN38.3, IEC, and RoHS. Our products are widely used in smart meters (electricity, water, gas, and heat meters), smart sensors, and other IoT devices, as well as in smart cities, ETC systems, scientific research, and military applications. Guided by our core values of "People-Oriented, Innovation-Driven, Competition-Embracing, Quality-Dedicated", we are committed to providing reliable primary lithium batteries to thousands of corporate customers worldwide.

Aerial view of FORTE Industrial Park

# CERTIFICATIONS

Specialized In Primary Lithium Battery For **25** Years

Construction area **45,000+**m<sup>2</sup>

Annual output **80,000,000+**

Cooperative customers **2,000+**

Service industry **100+**

Established in **2001**



Patent Certificates

ISO9001

ISO14001

ISO45001

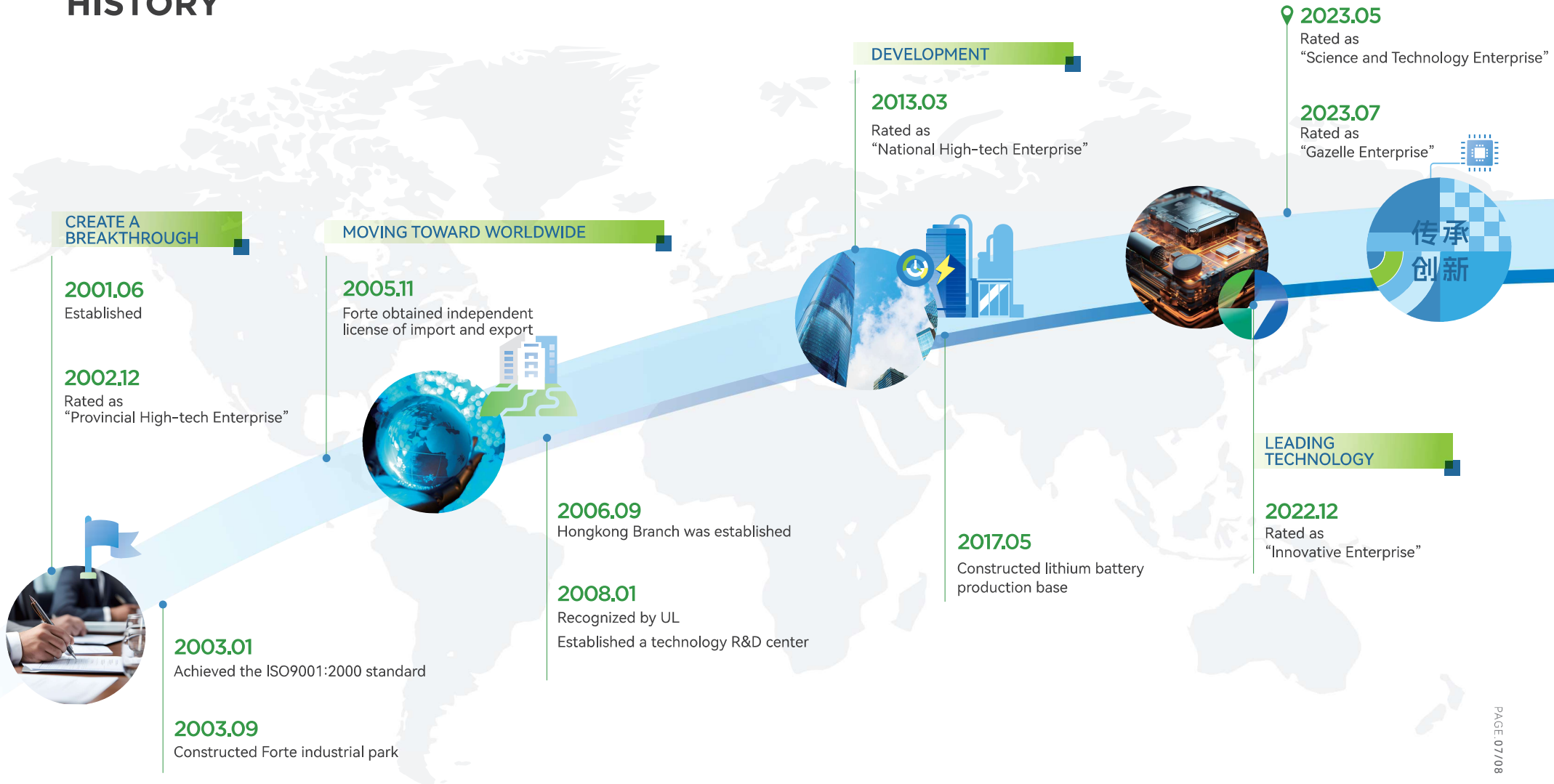
UL

RoHS

UN38.3

CE

# DEVELOPMENT HISTORY



# BRAND CONCEPT

## MISSION

Building a representative brand of lithium battery in China

## VISION

Committed to become one of the best lithium battery suppliers in the world

## CORE VALUES

People-Oriented, Innovation-Driven, Competition-Embracing, Quality-Dedicated.

### Internet of Things

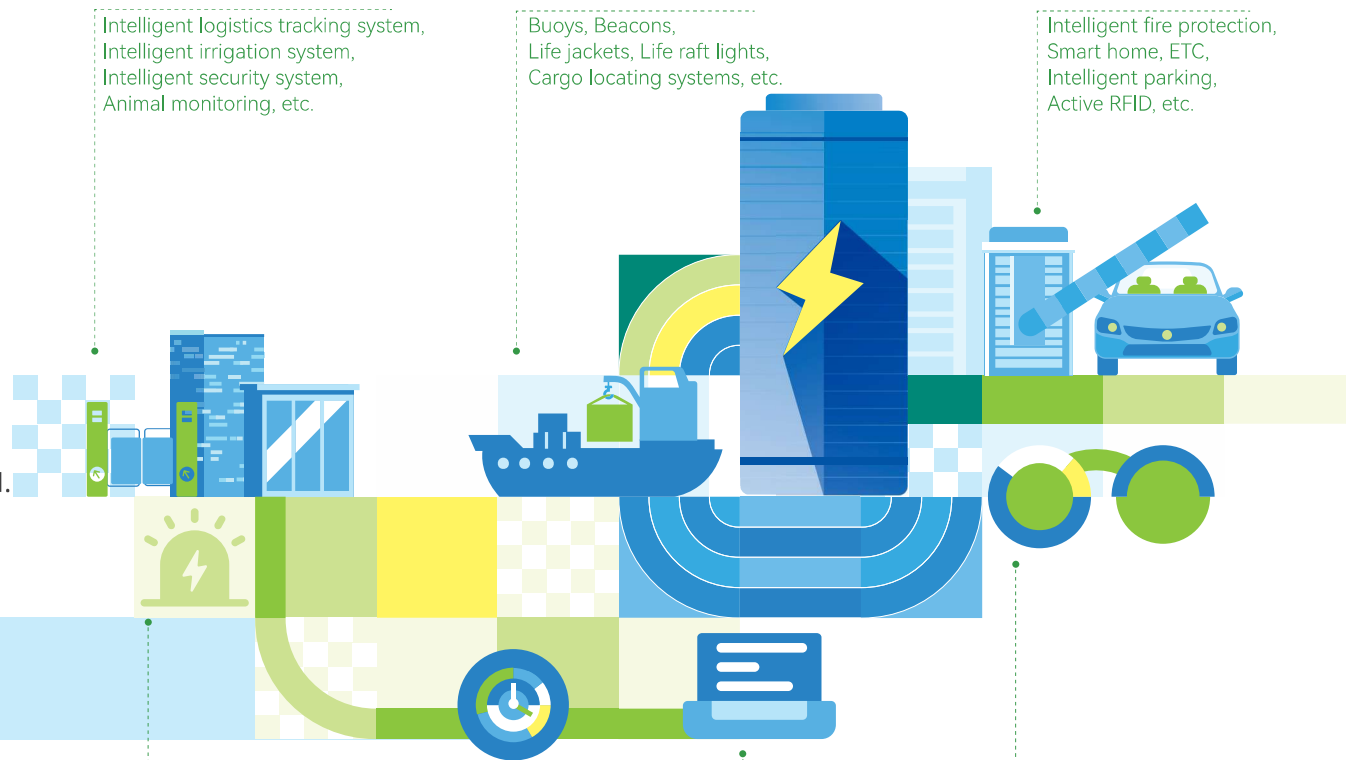
Intelligent logistics tracking system, Intelligent irrigation system, Intelligent security system, Animal monitoring, etc.

### Marine Equipment

Buoys, Beacons, Life jackets, Life raft lights, Cargo locating systems, etc.

### Intelligent City

Intelligent fire protection, Smart home, ETC, Intelligent parking, Active RFID, etc.



# APPLICATION AREAS

### Security Alert

Access control systems, Video monitoring, Environmental sensors, Smoke alarm, etc.

### Smart Meter

Intelligent Meter(Electricity, Water, Gas, Heat) etc.

### Medical Equipment

Blood glucose meter, Infusion pump etc.

### Military Equipment

Military communication equipment, Drone, Robot, Night vision device, Location tracking system, etc.

# ER Series

## Li-SOCl<sub>2</sub> Battery

### PRODUCT OVERVIEW

Lithium thionyl chloride battery have a metallic Lithium anode and thionyl chloride (SOCl<sub>2</sub>) as active cathode; it has the highest specific capacity and specific energy. FORTE lithium batteries are used in new electronic devices.



### MAIN FEATURES

#### High and stable operating voltage

The Forte lithium batteries have a nominal voltage of 3.6V, and the operating voltage remains significantly stable throughout the entire service life.

#### High energy density

Up to 650Wh/kg

#### Long shelf life

Less than 2% annual capacity loss in storage at +20°C, together with the use of a hermetic seal, so batteries can store above 10 years at normal room temperature.

#### Wide working temperature

The batteries can be used in a wide temperature range from -60°C~85°C.

### Application



Smart Meter(Water, Electricity, Gas, Heat), ETC(Electronic Toll Collection System), Alarms and security wireless devices, RFID Tag, Marine/oceanographic equipment(Tsunami Detector, Life Jacket, Buoy), Oil & Gas exploration, Military system.

### Product Parameter

Model	Size	Nominal Voltage (V)	Nominal Capacity (mAh)	Max. Continuous Current(mA)	Max. Pulse Current (mA)	Working Temperature Range(°C)	Max. Outside Dimension (mm)	Weight (g)
Bobbin Type								
ER14250	1/2AA	3.6	1200	15	50	-55 ~ +85	φ14.5*25.5	10
ER14335	2/3AA	3.6	1650	35	60	-55 ~ +85	φ14.5*33.5	13
ER14505	AA	3.6	2600	50	130	-55 ~ +85	φ14.5*50.5	19
ER17335	2/3A	3.6	2200	40	100	-55 ~ +85	φ17.0*33.5	19
ER17505	A	3.6	3500	80	160	-55 ~ +85	φ17.5*50.5	26
ER18505	A	3.6	3800	130	180	-55 ~ +85	φ18.5*50.5	32
ER26500	C	3.6	8500	150	300	-55 ~ +85	φ26.2*50.0	58
ER34615	D	3.6	19000	200	350	-55 ~ +85	φ34.2*61.5	107
ER261020	CC	3.6	17000	200	400	-55 ~ +85	φ26.2*100.0	100
ER341245	DD	3.6	35000	400	600	-55 ~ +85	φ34.2*125.0	220
Spiral Type								
ER14250M	1/2AA	3.6	800	200	300	-55 ~ +85	φ14.5*26.3	11
ER14335M	2/3AA	3.6	1300	200	400	-55 ~ +85	φ14.5*33.7	14
ER14505M	AA	3.6	2200	500	1000	-55 ~ +85	φ14.5*50.5	21
ER17335M	2/3A	3.6	1900	500	1000	-55 ~ +85	φ17.0*33.8	20
ER17505M	A	3.6	2700	1000	2000	-55 ~ +85	φ17.0*50.5	29
ER18505M	A	3.6	3500	1000	2000	-55 ~ +85	φ18.5*50.5	33
ER26500M	C	3.6	6500	1500	2500	-55 ~ +85	φ26.2*50.0	57
ER34615M	D	3.6	14500	2000	4000	-55 ~ +85	φ34.2*61.5	110

■ Note: The above data comes from FORTE's laboratory. Contact us for selection.  
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# ER Series

# Li-SOCl<sub>2</sub> Battery High Temperature

## PRODUCT OVERVIEW

The lithium batteries produced by Forte are suitable for high-power devices operating in demanding conditions such as high impact and vibration. Forte utilize unique high-temperature-resistant materials and manufacturing processes, allowing the batteries to maintain excellent electrical performance in high-temperature environments while also ensuring high levels of safety and reliability.



## MAIN FEATURES

### Durability

The nominal voltage is 3.6V, and the operating voltage remains significantly stable throughout the entire service life; over 90% of the battery capacity is output on a high-voltage platform with voltage almost unchanged.

### Wide working temperature

The high-temperature batteries produced by Forte are typically used in extreme oil and gas exploration conditions, and operating in a wide temperature normally from -40°C to 180°C.

### Reliability

The unique low self-discharge characteristic of the lithium battery, combined with the fully sealed battery welding process, enables the lithium high-temperature batteries produced by Forte to still provide continuous power for equipment under harsh usage conditions such as high shock and vibration.

### Ultimate safety

Extreme shock and vibration resistance; Free from mercury, cadmium, lead and other heavy metals, and not harmful to the environment.

## Product Parameter

Model	Size	Nominal Voltage (V)	Nominal Capacity (mAh) (@70-90°C)	Max. Constant Current(mA)	Max.Pulse Current (mA)	Working Temperature Range(°C)	Max. Outside Dimension (mm)	Weight (g)
ER14250S-150	1/2AA	3.6	700	20	50	-40 ~ +150	φ14.5×25.5	10
ER14335MS-150	2/3AA	3.6	1200	30	100	-40 ~ +150	φ14.5×33.5	14
ER14505MS-150	AA	3.6	1600	100	400	-40 ~ +150	φ14.5×50.5	20
ER18505MS-150	A	3.6	2200	200	300	-40 ~ +150	φ18.5×50.5	30
ER26500MS-150	C	3.6	5500	400	800	-40 ~ +150	φ26.2×52.5	60
ER261020MS-150	CC	3.6	13000	500	1200	-40 ~ +150	φ26.2×104.5	95
ER34615MS-150	D	3.6	11000	400	1200	-40 ~ +150	φ34.2×62.5	105
ER32900MS-150	2/3DD	3.6	18000	500	1500	-40 ~ +150	φ32.5×92.5	148
ER321240MS-150	DD	3.6	28000	500	2000	-40 ~ +150	φ32.5×126.5	202
ER321250MS-150	DD	3.6	28000	500	2000	-40 ~ +150	φ32.5×127.5	203
ER321270MS-150	DD	3.6	29000	500	2000	-40 ~ +150	φ32.5×129.5	205

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## Application



Petroleum industry: pressure gauge, flow meter, while drilling measurement instrument, etc.



Automobile industry: tire pressure alarm, diesel engine cylinder detection, etc.



Geothermal industry: high temperature detection instruments.



Military field and other equipment that need to use batteries in high temperature environment.

## BATTERY PACKS



APS-10DD-36V  
150°C/165°C/180°C



HL-10DD-36V  
150°C/165°C/180°C



GM-10DD-36V  
150°C/165°C/180°C



GE-8DD-28.8V  
150°C/165°C/180°C

■ Battery pack solutions can be customized according to requirements.

# CR Series

## Li-MnO<sub>2</sub> Battery

### PRODUCT OVERVIEW

Lithium manganese dioxide cell have a metallic Lithium cathode and a solid manganese dioxide anode, immersed in a non-corrosive and non-toxic organic electrolyte, The Li-MnO<sub>2</sub> batteries produced by Forte are also characterized by high safety, low internal resistance, and the smooth discharge curve at high current output.



### MAIN FEATURES

Superior pulse capability

High and stable operating voltage, No passivation

Temperature range: -40°C~+85°C

UL、UN、CE、RoHS、SGS Certification

Long shelf life: self-discharge is less than 2% per year at Room temperature

### Application



Smart Meter(Water, Electricity, Gas, Heat);

ETC(Electronic Toll Collection System);

Marine/oceanographic equipment(Tsunami Detector,Life Jacket, Buoy);

Alarms and security wireless devices, RFID Tag, Oil & Gas exploration, Military system.

### Product Parameter

Model	Size	Nominal Voltage (V)	Nominal Capacity (mAh)	Max. Continuous Current(mA)	Max. Pulse Current (mA)	Working Temperature Range(°C)	Max. Outside Dimension (mm)	Weight (g)
<b>Cylindrical Battery</b>								
CR14250	1/2AA	3.0	600	500	1500	-40 ~ +85	φ14.5*25.5	10
CR14335	2/3AA	3.0	800	1000	2000	-40 ~ +85	φ14.5*33.5	14
CR14505	AA	3.0	1500	1500	3000	-40 ~ +85	φ14.5*50.5	21
CR2	--	3.0	850	1000	2000	-40 ~ +85	φ15.5*27.5	13
CR17335	2/3AA	3.0	1500	1500	3000	-40 ~ +85	φ17.0*33.5	20
CR17450	--	3.0	2000	1500	3000	-40 ~ +85	φ17.0*45.5	26
CR17505	--	3.0	2300	1500	3000	-40 ~ +85	φ17.0*50.5	30
CR18505	A	3.0	2700	2000	3000	-40 ~ +85	φ18.5*50.5	35
CR26500	C	3.0	5400	2000	3000	-40 ~ +85	φ26.0*50.5	62
CR34615	D	3.0	12000	2000	3000	-40 ~ +85	φ34.0*61.5	125
CR1/3N	--	3.0	170	80	160	-40 ~ +70	φ11.6*10.8	3
CR2	--	3.0	1000	1000	1500	-40 ~ +70	φ15.6*27.0	11
CR123A	2/3AA	3.0	1500	1500	3000	-40 ~ +70	φ17.0*34.5	17
CR17450	--	3.0	2400	1500	3000	-40 ~ +70	φ17.0*45.5	24
CR17505	--	3.0	2800	2000	4000	-40 ~ +70	φ17.0*50.5	28
<b>Battery Pack</b>								
CR-P2	--	6.0	1600	1500	3000	-40 ~ +70	19.5*34.0*35.8	42
2CR5	--	6.0	1600	1500	3000	-40 ~ +70	17.0*34.0*45.0	43
CP9V	--	9.0	1200	150	400	-40 ~ +70	17.5*26.5*49.0	45

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# FPC Series

## Forte Pulse Battery Capacitor & ER+FPC Solution

### PRODUCT OVERVIEW

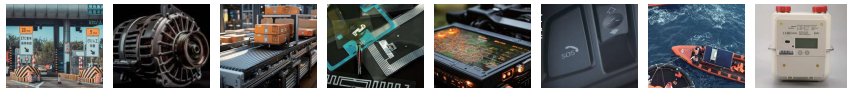
FORTE has introduced the ER+FPC (Capacitor) combined power solution for IoT application scenarios with communication and all devices that switch from high-current pulse to sleep mode. It consists of a composite pulse battery capacitor (FPC) and Forte lithium thionyl chloride battery (ER) connected in parallel.



### MAIN FEATURES

- High and stable voltage
- High Pulse Capability
- No passivation effect
- Wide operating temperature range : (-40°C to +85°C)
- Low self-discharge ( < 3% per year)
- High capacity : Compared with the same type of Spiral type battery, The capacity increased more than 30%.
- High reliability (hermetic laser sealing, glass-to-metal seal)

### Application



ETC Smart metering system, intelligent transportation ETC, Automatic meter reading(AMR/AMI), Monitoring system, Vehicle emergency system, Automatic meters(Gas meter/Water meter, etc) RFID devices, GPS tracking equipment /GSM modem.

### Product Parameter

FPC Capacitor							
Model	Dimension (mm)	maximum charge Voltage(V)	Nominal Capacity (As)	Max.constant Current (mA)	Max.pulse Current (mA)	Discharge cutoff Voltage(V)	Internal resistance (mΩ)
FPC1520	φ15.1*21.0	3.95	140@3.7V	500	2000	2.5	< 250
FPC1550	φ15.1*51.0	3.95	560@3.7V	2000	5000	2.5	< 100

ER+FPC Solution					
Model	Size	Nominal Voltage(V)	Nominal Capacity(mAh)	Max.pulse Current(mA)	Dimension (mm)
ER14250+FPC1520	1/2AA+2/5AA	3.6	1200	1500	28*30*15.5
ER14505+FPC1520	AA+2/5AA	3.6	2600	1500	55*30*15.5
ER18505+FPC1520	A+2/5AA	3.6	3800	1500	55*36*18.5
ER26500+FPC1520	C+2/5AA	3.6	8500	1500	φ29*67
ER34615+FPC1520	D+2/5AA	3.6	19000	1500	φ34*78
ER26500+FPC1550	C+AA	3.6	8500	3000	55*44*28
ER34615+FPC1550	D+AA	3.6	19000	3000	64*53*35

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